Did Investments in LGBTQ Diversity Help Improve Relative Corporate Performance During the COVID-19 Crisis?

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Abstract

The impact of companies' environmental, social, and governance (ESG) policies and practices, particularly sociopolitical activity, on corporate performance is a hotly debated issue. Proponents of corporate ESG efforts and sociopolitical activism believe these actions build corporate social capital that will protect overall corporate value during challenging times and after negative corporate publicity. Corporate LGBTQ inclusiveness is a social dimension of ESG that some stakeholders may consider sociopolitical activism that requires extra effort and cost. We address the impact of corporate LGBTQ inclusiveness policies during challenging economic conditions, using the COVID pandemic as a natural experiment. We examine the association between ratings of organizations based on their policies and activities in support of LGBTQ employees and the LGBTQ community, the Corporate Equality Index (CEI), and corporate performance during challenging economic conditions. We show that CEI rankings before the

pandemic are positively and significantly related to Tobin's Q in 2020 and the change in Tobin's Q from 2019 to 2020. Also, panel data analysis shows that the positive impact of CEI on Tobin's Q is more salient in 2020. This study provides evidence that ESG investments in diversity helped improve corporate performance, especially during the COVID crisis.

Keywords: COVID-19, corporate value, LGBTQ, Corporate Equality Index, Tobin's Q

Introduction

Proponents of firms' corporate social responsibility (CSR) activities argue that these activities build up social capital, or goodwill, from stakeholders that will benefit corporations in the long run, including times of adverse economic conditions (Filbeck et al., 2022; Amiraslani et al., 2023). However, an alternative view, the overinvestment hypothesis states that corporations will spend more money on such activities than on the potential benefits received (Tampakoudis et al., 2021). COVID-19 provides a good natural experiment on the impact of these activities on firm performance because firms needed social capital from stakeholders during this unexpected crisis. The evidence in the literature is mixed: whereas several prior studies on the impact of companies' environmental, social and governance (ESG) scores on financial performance and market value during the COVID pandemic have found that high ESG scores appeared to provide some protection against market losses during the pandemic, other articles provide contradictory evidence and conclude that ESG scores provided no benefit to publicly traded companies' market values during 2020.

One potential explanation for the different conclusions is the various ESG measures used in the studies. Different measures of companies' ESG scores are available, including Bloomberg, MSCI, Sustainalytics, and Refinitiv (formerly Thomson Reuters). The rating systems vary from each other and are different in specific areas evaluated. This study examines whether accounting performance and market values during the COVID pandemic were associated with one specific aspect of ESG, diversity policies regarding the LGBTQ community, as measured by the Human Rights Campaign's Corporate Equality Index (CEI). While diversity, in general, is documented as a strength to improve various firm policies and outcomes, including reporting quality (Felix, Pevzner, and Zhao, 2021) and management forecasting (Wang, 2023), LGBTQ as a diversity topic deserves special attention: LGBTQ effort is an important and unique aspect of corporate general ESG practices because it is costly and can bring the risk of backlash in some situations (Palumbo, 2023; Berk, 2023). Nevertheless, studies that focus on LGBTQ engagement are limited in accounting and

finance (Rumens, 2016). Prior studies suggest that the CEI measure captures public company value better than other diversity measures (Foster et al. 2022) and is positively related to corporate market values (Pichler, et al. 2018; Foster et al. 2020 and 2021).

In the main analyses, this study uses publicly traded U.S. companies with available financial variables in the Compustat dataset that also received a CEI rating for LGBTQ diversity performance for the year prior to the COVID-19 pandemic. Regression analyses are conducted to test the association between CEI and accounting performance and market value during the first year of the pandemic. Our analyses include control variables for many factors such as company financial performance and market value prior to the pandemic, size, liquidity, capital structure, research and development expenditures, and industry.

Results in this article indicate that whereas CEI ratings were negatively associated with short-term accounting performance measured by return on assets, they are positively associated with corporate value as measured by Tobin's Q. Our findings provide evidence that investments in diversity and inclusion efforts and practices help build social capital that can protect companies during adverse economic conditions. Overall results support the contention that while diversity and inclusion investments may not result in short-term accounting performance improvement (as measured by ROA), investors recognize the long-term benefits of such investments.

The next section discusses our motivation and research issues, including our hypotheses. The following sections discuss our research methods and results. The final section includes our conclusions and discussions of the implications.

Motivation and Research Issues

As mentioned in the Introduction, some previous research supports the contention that companies benefit from ESG investments and activities, which is in line with stakeholder theory. Managers have to balance the various perspectives of different stakeholders to protect the long-term value and performance of the corporation (Evan and Freeman, 1993). An effective way to manage relationships with various stakeholders is to invest in corporate social performance activities (Brower and Mahajan, 2013).

Agency theory presents a distinct expectation of the relationship between CSR/ESG investments and firm value. Barnea and Rubin (2010) discuss and test this contention, referred to as the over-investment hypothesis. Company insiders, including managers, can derive private benefits from CSR/ESG expenditures in the form of increased self-esteem by building a reputation as a good global citizen. Consequently, these insiders

may over-invest in CSR/ESG items to the detriment of shareholders. Barnea and Rubin (2010) find some evidence to support this hypothesis.

Conflicting Evidence on ESG and Company Performance During COVID

Early in the COVID pandemic, articles in the business press indicated that companies with excellent ESG performance were somewhat protected from the resulting declines in equity values (Darbyshire, 2020; Hale 2020, 2021(a), and 2021(b); McCabe, 2020; Nagy and Giese, 2020; Polman, 2020; Morgan Stanley, 2021; Willis, 2020). Some research studies performed after 2020 found support for the contention that superior ESG performance somewhat immunized companies from the negative effects of the COVID-19 pandemic in 2020 (Albuquerque et al., 2020; Ding et al, 2021). Ademi and Klungseth (2022) analyze panel data for 150 companies listed on the Standard & Poor's 500 index and find evidence that companies with superior ESG performance experience higher return on capital and higher Tobin's Q.

In contrast, questions about the validity of beneficial claims appearing in business journals about ESG early in the pandemic appeared relatively soon after the initial accolades (Nauman 2020). Some research studies find results consistent with the over-investment hypothesis during the COVID-19 pandemic crisis (Phang et al. 2023; Bae et al. 2021; Tampakoudis et al. 2021; and Demers et al. 2021). These conflicting research results demonstrate the need for further examination of the COVID-19 exogenous shock and suggest that perhaps an approach that focuses on a specific aspect of ESG, rather than its overall rating, is needed.

Focus of This Study – CEI

This study focuses on the specific area of societal attention on LGBTQ diversity and inclusion before and during the time of the COVID-19 pandemic. Prior research has provided support for the benefits of diversity and nondiscrimination policies to organizations (Wiersema and Bantel, 1992; Rao and Tilt, 2016; Huang, 2022). A recent article calls for future research studying the effect of an organization's bundle of LGBTQ policies and practices because the bundle of policies and practices should reinforce a shared understanding of the attitudes and behaviors expected at an organization across stakeholders (Roberson et al., 2024). Specifically, we examine whether social capital garnered from diversity policies related to the LGBTQ community as measured by the Human Rights Campaign's Corporate Equality Index (CEI) provided social capital benefits during the unexpected crisis.

The CEI is an index that captures LGBTQ inclusiveness efforts at an organization across a bundle of relevant criteria, such as workforce protections, inclusive benefits, inclusive culture, outreach, and contributions.

Scholars and practitioners note that LGBTQ-inclusive policies' adoption can be costly and risky to firms in the short term. Aside from the direct costs of implementing these inclusiveness activities, they might also cause negative publicity campaigns, including boycotts, which can negatively impact corporations (Gunther, 2006; Cook and Glass, 2016). The recent boycotts of Bud Light and Target illustrate this risk (Palumbo, 2023; Berk, 2023). Egan and de Lima Voss (2023) also suggest that LGBTQ activities might not be supported by some clients of Big 4 professional services firms. These activities can also be viewed as tokenism, even by staff who are in the LGBTQ community (Pereira et al., 2024).

However, prior research has provided evidence that LGBTQ inclusiveness policies are associated with a higher long-term firm value (Wang and Schwarz, 2010; Pichler et al., 2018; Hossain et al., 2020; Foster et al., 2020, and 2022; Roberson et al., 2024). Foster et al. (2022) find that CEI captures the benefits of diversity efforts to public company values better than other diversity measures.

Hypotheses

Based on overall prior research and general societal perceptions prior to the COVID-19 pandemic, we test the following hypotheses stated in the null form.

Hypothesis 1: Diversity & inclusion performance (as proxied by CEI ratings) has no impact on the reported accounting financial performance of companies during the COVID pandemic.

Because of previous literature on the short-term impact of LGBTQ inclusiveness policies, we do not necessarily expect a positive or negative association between CEI and reported accounting financial performance such as return on assets (ROA) during the COVID pandemic.

Hypothesis 2: Diversity & inclusion performance (as proxied by CEI ratings) did not protect the market value of companies during the COVID pandemic.

Rejecting *Hypothesis 2* will provide evidence consistent with a stakeholder theory perspective that investments in diversity can provide social capital to protect the long-term value of companies in times of crisis.

Research Methods
Sample

This paper aims to investigate whether higher CEI ratings provided some resistance to negative overall market effects of dramatic economic

events, using the COVID-19 pandemic as a natural experiment. Consequently, our potential sample for analyses consists of organizations included in the Human Rights Campaign Foundation's *Corporate Equality Index 2020* (Human Rights Campaign Foundation, 2020). This report contains ratings for 1,059 organizations and was released in early 2020, based on survey results and investigations conducted in 2019. To provide information to their constituents, the Human Rights Campaign Foundation rates organizations that do not fill out their survey based on investigations of public records and news reports.

Table 1 provides details on how the test sample is constructed. *Corporate Equality Index* reports include ratings on many organizations that are not publicly traded or are subsidiaries of a publicly traded company. Those are excluded from our analyses, along with companies not based in the United States because CEIs are developed based on information from United States operations. Therefore, 709 observations were identified with a CEI and included in the Compustat data set.

Due to substantial regulatory reporting requirements and somewhat unique operations, 119 financial firms (SIC code 6000s) are excluded. Another 165 observations are missing data necessary to construct all the variables included in our models. Consequently, the main analyses are conducted with 425 observations.

Table 1: Sample Derivation

Number of CEI observations for FY 2019	1059
Dropping:	
Nonprofit/Gov nontraded/Employee-owned	38
Privately-held companies	134
Not found or conflicting TIC/gvkey	18
Subsidiary/Acquired Merged	62
Non-US firms	98
Total potential Compustat observations	709
Less: SIC code 6000 - 6999	119
Missing data, for 2020 analyses variables	165
All Usable observations	425

Variables and Models

Our main variable of interest is CEI, a measure of LGBTQ-friendly policies and activities by a company. We are interested in the impact of CEI on companies' financial performance and market value during the COVID-19 pandemic. Consequently, following previous research, we examine the return on assets (ROA) as a measure of short-term accounting performance and Tobin's Q as a measure of market value. We use both ROA and Tobin's Q at the end of fiscal year 2020 and the changes in ROA and Tobin's Q from fiscal year 2019 to 2020 as dependent variables. Consistent with prior

studies, we control for company size, liquidity, financial risk, sales growth, R&D expenditures, fiscal year-ends, and two-digit SIC industry codes.

Our analyses are conducted with the following regression models.

$$ROA_{2020} = \alpha_1 + \alpha_2(CEI_{2019}) + \alpha_3(TOBINSQ_{2019}) + \alpha_4(SIZEA_{2020}) + \alpha_5(CASHAT_{2020}) + \alpha_6(LEV_{2020}) + \alpha_7(CAPINT_{2020}) + \alpha_8(ALTMANZ_{2020}) + \qquad (1a)$$
$$\alpha_9(SALESGROWTH_{2020}) + \alpha_{10}(ROA_{2019}) + \alpha_{11}(RDAT_{2020}) + \sum FYE_{it} +$$
$$\sum 2\text{-digit SIC}_{it} + e$$

$$chgROA_{2020} = \alpha_1 + \alpha_2(CEI_{2019}) + \alpha_3(TOBINSQ_{2019}) + \alpha_4(SIZEA_{2020}) + \alpha_5(CASHAT_{2020}) + \alpha_6(LEV_{2020}) + \alpha_7(CAPINT_{2020}) + \alpha_8(ALTMANZ_{2020}) + \qquad (1b)$$
$$\alpha_9(SALESGROWTH_{2020}) + \alpha_{10}(RDAT_{2020}) + \sum FYE_{it} +$$
$$\sum 2\text{-digit SIC}_{it} + e$$

$$TOBINSQ_{2020} = \alpha_1 + \alpha_2(CEI_{2019}) + \alpha_3(TOBINSQ_{2019}) + \alpha_4(SIZEA_{2020}) + \alpha_5(CASHAT_{2020}) + \alpha_6(LEV_{2020}) + \alpha_7(CAPINT_{2020}) + \alpha_8(ALTMANZ_{2020}) + \qquad (2a)$$
$$\alpha_9(SALESGROWTH_{2020}) + \alpha_{10}(ROA_{2019}) + \alpha_{11}(RDAT_{2020}) + \sum FYE_{it} +$$
$$\sum 2\text{-digit SIC}_{it} + e$$

$$chgTOBINSQ_{2020} = \alpha_1 + \alpha_2(CEI_{2019}) + \alpha_3(TOBINSQ_{2019}) + \alpha_4(SIZEA_{2020}) + \alpha_5(CASHAT_{2020}) + \alpha_6(LEV_{2020}) + \alpha_7(CAPINT_{2020}) + \alpha_8(ALTMANZ_{2020}) + \qquad (2b)$$
$$\alpha_9(SALESGROWTH_{2020}) + \alpha_{10}(ROA_{2019}) + \alpha_{11}(RDAT_{2020}) + \sum FYE_{it} +$$
$$\sum 2\text{-digit SIC}_{it} + e$$

where: ROA_t = net income divided by total assets (AT) end of year$_t$;

$chgROA_{2020} = (ROA_{2020} - ROA_{2019}) / ROA_{2019}$;

$TOBINSQ_t$ = Tobin's q at end of year$_t$, which equals (the market value of common stock

+ book value of liabilities)/the book value of the AT of the firm;

$chgTOBINSQ_{2020} = (TOBINSQ_{2020} - TOBINSQ_{2019}) / TOBINSQ_{2019}$;

CEI_{2019} = HRCF CEI. (The HRC 2020 CEI report was issued in January 2020, based on data collected in 2019.)

Detailed explanations of other control variables can be found in the Appendix, which lists the variables in alphabetical order with their definitions.

Results

Panel A of Table 2 presents descriptive statistics for the main sample, while Panel B presents Pearson correlation statistics between the variables. (For statistical analysis, we winsorize all continuous variables at the 1% and 99% levels.) We include correlation test results because Gregory (2021) suggests that regression analyses may not produce appropriate tests for the impact of ESG criteria on corporate financial performance. As expected, due to the COVID pandemic, the average ROA for 2020 is substantially lower than it was for the previous year. Sales growth was negative from 2019 to 2020. Somewhat interestingly, the mean Tobin's Q at the end of 2020 is higher than that at the end of 2019, and ChgTobinQ is positive. This indicates that the initial market losses at the beginning of the pandemic were recovered over the rest of the year.

Table 2: Descriptive Statistics and Correlations

Panel A: Descriptive Statistics		
Variable	**Mean**	**Std Dev**
CEI	82.847	27.848
ROA2020	0.019	0.099
ROA2019	0.049	0.081
chgROA	-0.029	0.087
Tobinq2020	2.326	1.870
TQ2019	2.211	1.618
ChgTobinQ	0.097	0.581
AT	37,339	58,471
SIZEA	9.705	1.290
CASHAT	0.138	0.122
LEV	0.353	0.168
CAPINT	0.302	0.232
ALTMANZ	2.961	2.644
SALES GROWTH	-0.043	0.232
RDAT	0.020	0.040
N =425		

Table 2: continued

Panel B: Pearson Correlation Coefficients Prob > |r| under H0: Rho=0, N = 425

	ROA	ROA2019	chgROA	Tobinq	TQ 2019	ChgTobinQ	CEI
CEI	0.02	<u>0.10</u>	-0.08	**0.22**	**0.21**	*0.09*	1.00
	0.75	<u>0.04</u>	0.11	**<.001**	**<.001**	*0.06*	
AT	<u>0.10</u>	0.07	0.05	-0.01	-0.03	0.04	**0.19**
	<u>0.03</u>	0.14	0.30	0.85	0.58	0.39	**<.001**
SIZE	**0.18**	**0.17**	0.04	-0.06	-0.05	-0.05	**0.19**
	0.00	**0.00**	0.36	0.24	0.34	0.29	**0.00**
CASHAT	0.01	0.05	-0.04	**0.47**	**0.43**	**0.27**	0.16
	0.87	0.27	0.40	**<.001**	**<.001**	**<.001**	**0.00**
LEV	*-0.08*	**0.12**	**-0.20**	0.02	<u>0.09</u>	**-0.17**	0.05
	0.10	**0.01**	**<.001**	0.66	<u>0.05</u>	**0.00**	0.31
CAPINT	**-0.19**	-0.06	**-0.17**	**-0.20**	**-0.21**	<u>-0.10</u>	**-0.16**
	<.001	0.26	**0.00**	**<.001**	**<.001**	<u>0.04</u>	**0.00**
ALTMAN Z	**0.52**	**0.35**	**0.26**	**0.76**	**0.65**	**0.49**	0.07
	<.001	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	0.17
SALES GROWTH	**0.45**	0.05	**0.46**	**0.30**	**0.28**	**0.18**	*0.08*
	<.001	0.28	**<.001**	**<.001**	**<.001**	**0.00**	*0.08*
RDAT	**0.12**	0.06	0.08	**0.47**	**0.46**	**0.26**	**0.22**
	0.01	0.19	0.11	**<.001**	**<.001**	**<.001**	**<.001**

P-values < 0.01 are bolded. P-values < 0.05 are underlined. P-values < 0.10 are italicized.
Variables are defined in the Appendix.

Correlation results reported in Panel B of Table 2 that indicate the prior year CEI is not correlated with the ROA variables but is significantly and positively correlated with Tobin's Q at the end of 2020 and 2019, and marginally correlated with the change in Tobin's Q from 2019 to 2020.

Regression Results

Table 3 presents results from regression analyses with ROA, while Table 4 presents results from regression analyses with Tobin's Q. Table 3 results provide evidence that prior year CEI is negatively and significantly related to ROA and change in ROA in 2020 when controlling for other variables impacting ROA. (This result also holds when the models include a variable for companies experiencing a loss in 2019 or in 2020 as mentioned later in robustness checks.)

These results are not surprising because investments in ESG/diversity efforts are recognized to impact long-term value, not necessarily immediate results. These results provide evidence to reject Hypothesis 1 and indicate that LGBTQ investments can be costly activities that are distinctive to other ESG endeavors and should be examined separately.

Regression analysis results are reported in Table 4 with Tobin's Q as the dependent variable. These analyses test Hypothesis 2 regarding whether

high CEI ratings would help protect the market value of companies during the COVID pandemic, in line with stakeholder theory. Table 4 provides evidence that prior year CEI is positively and significantly related to 2020 Tobin's Q and the change in Tobin's Q from 2019 to 2020, after controlling for other variables that could impact those measures. Thus, analyses provide evidence to reject Hypothesis 2 which states high CEI ratings were not associated with protection from loss of market value as measured by Tobin's Q.

Table 3: Regression Results for ROA and chgROA

Dependent Variable: ROA2020			ChgROA	
Variable	Parameter Estimate	Pr > |t|	Parameter Estimate	Pr > |t|
CEI	**-0.0004**	**0.004**	**-0.0004**	**0.007**
TQ2019	0.005	0.176	-0.002	0.610
SIZEA	0.007	0.025	0.001	0.692
CASHAT	*-0.072*	*0.054*	-0.060	0.160
LEV	-0.014	0.584	-0.058	0.043
CAPINT	-0.054	0.014	*-0.045*	*0.074*
ALTMANZ	**0.011**	**<.0001**	0.005	0.029
SALESGROWTH	**0.113**	**<.0001**	**0.138**	**<.0001**
ROA2019	**0.481**	**<.0001**		
RDat	-0.259	0.022	-0.081	0.525
Intercept	*-0.055*	*0.079*	-0.019	0.583
Industry Dummies	Yes		Yes	
FYE Dummies	Yes		Yes	
N	425		425	
Adjusted R-Sq	0.553		0.252	

P-values $\leq$ 0.01 are **bolded**. p-values $\leq$ 0.05 are underlined. P-values $\leq$ 0.10 are *italicized*.
Variables are defined in Appendix A.

The statistics in Table 4 indicate that the impact of CEI on Tobin's Q and the change in Tobin's Q during 2020 was not trivial. For example, assume that two comparable companies had an average Tobin's Q 2019 of 2.211, but earned CEI ratings of 50 and 100, respectively. The coefficient of CEI is 0.003 in Tobin's Q model. Those results indicate that the two companies would likely have Tobin's Qs [2.211 + (0.003 x 50)] = 2.361 and [2.211 + (0.003 x 100)] = 2.511, respectively at the end of 2020. The average ChgTobinQ of 0.097 would become [0.097 + (0.002 x 50)] = 0.197 and [0.097 + (0.002 x 100)] = 0.297 in the change in Tobin's Q model. Given the multibillion-dollar values of many publicly traded companies, the estimated Tobin's Q differences between the companies could represent billions of dollars.

The conflicting results between accounting performance and Tobin's Q are interesting and indicate the importance of studying LGBTQ inclusiveness. While CEI appears to be negatively associated with current

profitability, the positive association between CEI and Tobin's Q measure of firm value provides evidence that investment in inclusiveness results in corporate value creation. Figure 1 illustrates the estimates of the change in Tobin's Q based on different levels of companies' CEI ratings. The dark diagonal line represents the average change in Tobin's Q at different levels of CEI. The shaded area indicates the range of the change in Tobin's Q expected at different CEI ratings. At lower CEI levels, the average company has an estimated negative change in Tobin's Q, but the range of Tobin's Q changes is rather broad. The trendline indicates a positive increase in Tobin's Q changes as the CEI becomes higher. Also, at the higher levels of CEI, the positive impact is more uniform across firms.

Table 4: Regression Results for TobinQ and ChgTobinQ

Dependent Variable: Tobinq2020			ChgTobinQ	
Variable	Parameter Estimate	Pr > |t|	Parameter Estimate	Pr > |t|
CEI	**0.003**	**0.008**	**0.002**	**0.024**
TQ2019	**0.748**	**<.0001**	**-0.118**	**<.0001**
SIZEA	0.016	0.592	0.013	0.513
CASHAT	**0.994**	**0.008**	**0.572**	**0.020**
LEV	**1.161**	**<.0001**	**0.600**	**0.000**
CAPINT	0.159	0.463	0.072	0.614
ALTMANZ	**0.291**	**<.0001**	**0.176**	**<.0001**
SALESGROWTH	-0.129	0.466	-0.047	0.686
ROA2019	**-3.937**	**<.0001**	**-2.603**	**<.0001**
RDAT	0.916	0.415	<u>1.484</u>	<u>0.046</u>
Intercept	**-1.134**	**0.000**	**-0.685**	**0.001**
Industry Dummies	Yes		Yes	
FYE Dummies	Yes		Yes	
N	425		425	
R-Sq	0.877		0.444	

P-values $\leq$ 0.01 are **bolded**. p-values $\leq$ 0.05 are <u>underlined</u>. P-values $\leq$ 0.10 are *italicized*. Variables are defined in Appendix A.

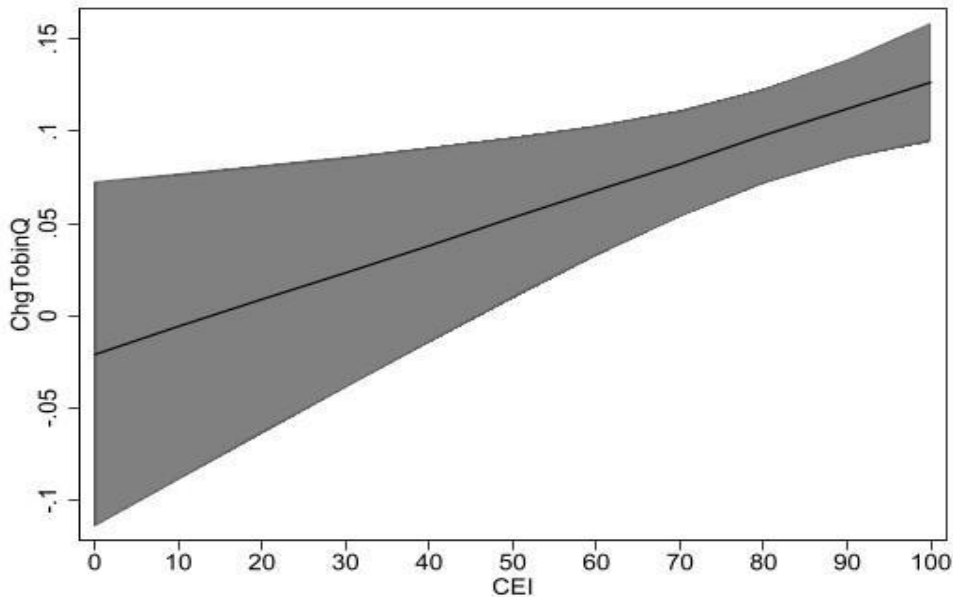Regression results for change in Tobin's Q, plotted by CEI ratings, 95% confidence interval.

Figure 1: Estimates of Changes in Tobin's Q for Fiscal Year 2020 at CEI Levels

To test whether the impact on Tobin's Q associated with CEI in 2020 was unusual, we conducted panel regression analyses using data available from 2013 to 2021. Table 5 summarizes the results of these analyses with Tobin's Q and the year-to-year change in Tobin's Q. In Tobin's Q model, CEI is positively and highly significantly related to Tobin's Q. CEI is marginally significant and positively related to the change in Tobin's Q variable. The dummy variable for COVID year, 2020, indicates that 2020 was a significantly different year. As expected, this variable is negative and significant in both models.

As an additional test of Hypothesis 2, we include an interaction term between the COVID year and CEI in the panel analyses. The interaction term is positive and significantly related to the dependent variable in both models, supporting the rejection of Hypothesis 2. Taken together, these results indicate while that CEI is significantly associated with higher corporate value as measured by Tobin's Q in all years, the beneficiary impact of CEI is more pronounced during 2020 when social trust was greatly needed to maintain corporate value during the COVID crisis. This again confirms that LGBTQ investments provide insurance protection for corporate value during difficult times.

Table 5: Panel Regression Results for TobinQ and ChgTobinQ

Dependent variable Independent variables	Tobin Q Parameter Estimate Years 2013 - 2021	Pr > |t|	Change of Tobin Q Parameter Estimate	Pr > |t|
CEI	<u>0.003</u>	<u>0.011</u>	*0.003*	*0.083*
COVID Year	<u>-0.283</u>	<u>0.022</u>	<u>-0.332</u>	<u>0.014</u>
COVID Year X CEI	<u>0.003</u>	<u>0.032</u>	**0.003**	**0.009**
RDSGAstkat	0.116	0.597	-0.647	0.187
ROA	-0.243	0.837	-1.184	0.155
Lag Tobin Q	<u>0.314</u>	<u>0.012</u>		
Lag Change of Tobin Q			**-0.256**	**0.000**
SIZEA	0.019	0.640	-0.048	0.297
cashat	**1.749**	**0.008**	<u>1.103</u>	<u>0.024</u>
LEV	**2.087**	**0.000**	**0.615**	**0.008**
CAPINT	0.074	0.642	-0.053	0.751
ALTMANZ	**0.292**	**0.008**	<u>0.174</u>	<u>0.014</u>
SALESGROWTH	0.215	0.394	0.022	0.921
ROA2019	0.155	0.842	*-1.508*	*0.062*
LOSS	0.047	0.772	-0.056	0.708
lagLoss	0.019	0.862	0.005	0.978
Industry Effects	Yes		Yes	
FYE Month Effects	Yes		Yes	
Year Effects	Yes		Yes	
Observations	3,060		3,059	
Adjusted R-squared	0.706		0.158	

P-values $\leq$ 0.01 are **bolded**. P-values $\leq$ 0.05 are <u>underlined</u>. P-values $\leq$ 0.10 are *italicized*.
Variables are defined in Appendix A.

Robustness Checks

We also conduct our analyses (unreported for space consideration) with some simple changes to variables included in our models. Results previously included are based on variables winsorized at the 1% and 99% levels. Using the un-winsorized data produces almost the same results as far as signs and significances on CEI coefficients. Analyses are also conducted using the *Corporate Equality Index 2019*, issued in early 2019, based on data collected in 2018. Those analyses produce results very similar to those reported in Tables 3 and 4 in the body of the paper. Likewise, including indicator variables for reported losses in 2019 and 2020 produces little change in the sign and significance of CEI.

Because the pandemic was declared in March 2020 (Ahrens and Ferry, 2021), we also conducted analyses excluding 29 companies with fiscal year ends in March, April, and May 2020, resulting in 396 observations. Analyses excluding these companies produce essentially the same results as reported in the body of the paper. Similarly, including the 119 companies in

financial industries (SIC 6000s) in the sample does not change results related to CEI.

Analysis treating R&D and SGA expenditures partially as capital investments

We conduct another substantial robustness check due to the Demers et al. (2021) study, which finds no positive effect between prior ESG performance and stock returns during the COVID pandemic after controlling for many other factors. Particularly, they note that a constructed intangible asset based on prior and ongoing investments in research and development and selling, general, and administrative expenses (RDSGAstk) affect stock returns positively.

Demers et al. (2021) assume that 100% and 33% of research and development and SG&A expenditures, respectively, would be considered as an investment in intangible assets. They also assume that intangible assets would be amortized over five years. We also construct a RDSGAstk variable. We then run models including that measure and our other control variables (except RDAT), adjusted as necessary, when considering RDSGAstk as an intangible asset.
The adjusted variables follow Demers et al. (2021, 461-462).

Pearson correlations among the adjusted variables are very similar to those reported in Panel B of Table 2 above. RDSGAstkat is not correlated with the adjusted ROA measures but is positively and significantly correlated with the adjusted Tobin's Q measure and the change in that measure from 2019 to 2020. Regression analyses are also conducted with adjusted ROA and adjusted change in ROA as the dependent variables. Those results show that coefficients on the CEI are negative and significantly associated with adjusted ROA and the change in adjusted ROA.

Demers et al. (2021) find that RDSGAstkat is significantly associated with higher stock returns during the COVID-19 pandemic. Also, their models that include RDSGAstkat do not indicate that ESG ratings were significantly related to stock returns. We also conducted regression analyses with adjusted Tobin's Q, a measure of long-term corporate value, as the dependent variable. Results from those analyses indicate that CEI is positive and significantly related to companies' adjusted Tobin's Q at the end of 2020, and the change in adjusted Tobin's Q from 2019 to 2020. Contrary to Demers et al. (2021), the RDSGAstkat variable is not significantly associated with Tobin's Q at the end of 2020 or the change in Tobin's Q from 2019 to 2020. (Similar results are obtained when using unwinsorized data, and when indicator variables for losses are included in the models.)

Our robustness tests provide results similar to those reported in the body of this paper. Thus, these results also provide evidence to reject

Hypothesis 2. Our evidence supports the contention that CEI, and the social capital it produces, did shield the value of corporations during the COVID pandemic. (Tables of results from robustness tests are available from the authors upon request.)

Conclusions and Implications

LGBTQ inclusiveness tends to require relatively small investments for most large firms, such as equal spousal benefits and healthcare coverage (Human Rights Campaign 2020). However, these expenditures and policies can be polarizing and controversial compared to other corporate social activities. LGBTQ involvement can even be politically controversial as stakeholders from across the political spectrum have different attitudes toward LGBTQ inclusiveness (Fisch and Schwartz, 2024). Hence, whether LGBTQ social engagement improves firm performance and shareholder value is an important empirical question.

Many companies faced financial difficulties during the COVID-19 pandemic. Regarding the hypotheses tested in the study, we find that CEI provided some immunity against lost market value for companies during the COVID pandemic, in line with stakeholder theory expectations. The long-term investment in diversity efforts and activities perhaps created social capital that protected corporate value, as measured by Tobin's Q, during the pandemic. These results are interesting because the association of CEI with short-term accounting performance, measured by ROA, is negative and significant during the same time period. Panel data analyses provide some strong evidence that the beneficial effect of CEI on firm value is even higher during the pandemic year, indicating a value-protection impact associated with higher CEI.

Also, our results imply that instead of looking at an umbrella ESG measure to estimate accumulated corporate goodwill from corporate socially responsible activities, specific areas of these ESG efforts may be more important. Perhaps the ESG data is too broad and inconsistent to indicate what stakeholders truly value and activities that can improve company performance (Steffen 2021; Berg et al. 2020 and 2021). CEI is more consistently associated with corporate value and may represent companies' long-term commitment to diversity, and perhaps other activities, that result in social capital for those companies. Thus, investments in diversity and inclusion, particularly for the LGBTQ community may be a more direct way to build social capital than overall ESG investments.

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APPENDIX - Variable Descriptions

$ALTMANZ_{2020}$ = 1.2*((Current assets - Current liabilities)/AT) + 1.4*(Retained

earnings/AT)+ 3.3*(Earnings before interest and taxes/AT) + .6*(Market value

of common stock/total liabilities) + 1*(Sales /AT);

AT_{2020} =total assets (AT);

$CASHAT_{2020}$ = (Cash and cash equivalents/ AT) at the end of 2020.

$CAPINT_{2020}$ = (book value of property plant and equipment / AT) end of 2020;

CEI_{2019} = HRCF CEI. (The HRC 2020 CEI report was issued in January 2020, based on data collected in 2019.)

FYE_t = 1 if from FYE_t, 0 otherwise; and

LEV_{2020} = (long-term debt/AT) end of 2020;

NI_{2020} =Net income (NI);

ROA_{2020} = net income / total assets (AT) end of $year_t$;

$SALESGROWTH_{2020}$ =(sales $year_{2020}$ - sales $year_{2019}$)/ sales $year_{2019}$;

SEQ_{2020} = stockholders equity (SEQ);

$SIZEA_{2020}$ = log of AT at the end of 2020;

$TOBINSQ_t$ = Tobin's Q at end of $year_t$, which equals (the market value of common stock

+ book value of liabilities)/the book value of the AT of the firm;